Albert-Ludwigs-Universität Freiburg heike.mildenberger@math.uni-freiburg.de

A Ramsey-theoretic notion of forcing

We introduce Gowers–Matet forcing with a finite sequence of pairwise non-isomorphic Ramsey ultrafilters over ω and Gowers-Milliken-Taylor ultrafilters over the k-valued blocks Fin_k . For evaluating the new forcings, we prove a strengthening of Gowers' theorem on colourings of Fin_k . We investigate Ramsey spaces in the forcing extension.